A QUALITATIVE AND QUANTITATIVE ANALYSIS OF STUDENT LOAN DEBT AND ITS IMPACT ON POSTSECONDARY EDUCATION AND THE AMERICAN ECONOMY

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ABSTRACT

This paper seeks to address the current student debt problem in the United States from both a quantitative and qualitative perspective. I have analyzed the student debt problem using data from the New York Federal Reserve, CollegeBoard, and a number of university studies and independent sources. In this paper I address the current structure of postsecondary educational finance with a focus on student loans. I address the causes of the current amount of outstanding student debt on governmental, institutional, and personal fronts, and analyze the amount of debt and cost of tuition and fees by type of institution in order to create a more complete picture of the current student debt problem. After considering the causes of the current level of student debt, I analyze its current and potential future impact on the economy by focusing on housing and automobile purchases as leading indicators of future economic disturbance. Finally, I discuss possible solutions to this problem by outlining potential plans of action for incoming college students, individual institutions, and both federal and state governments.

HISTORY OF STUDENT LOAN DEBT

When the grandparents of millennials were attending college in 1940, the number of college graduates in the country was only 186,500, meaning that less than 5 percent of adults 25 and over in the U.S. had a college degree (studentdebtrelief.us). When adjusting the rate of inflation from 1940 to 2013, it would have only cost $7,200 per year in today's dollars to attend Yale University. Within the next ten years the number of college graduates nearly tripled to 432,058, mainly due to the passing of the Servicemen's Readjustment Act in 1944, better known as the GI Bill, which allowed for veterans of World War II to attend college using federal benefits. However, even after the instatement of the GI Bill, only 8 percent of adults 25 and older had attained a college degree (studentdebtrelief.us).

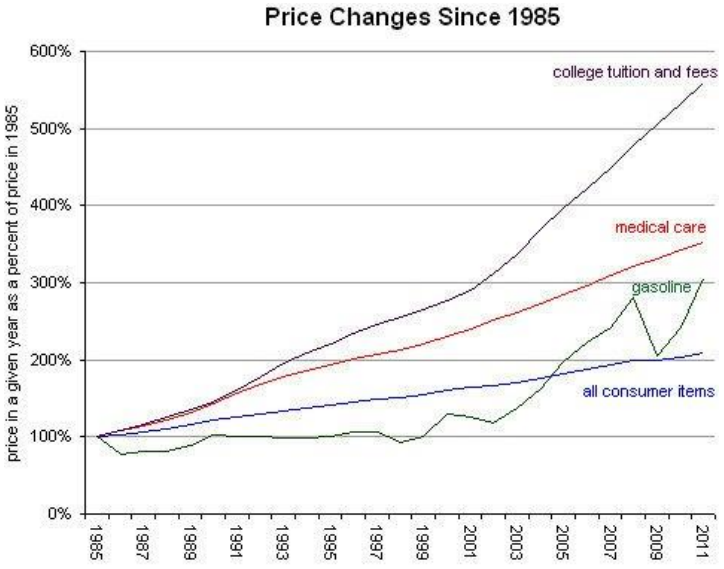
The first student loans backed by the Federal Government were offered in 1958 under the National Defense Education Act as a way to encourage American students to pursue math and science degrees following the launch of Sputnik by Communist Russia (studentdebtrelief.us). The NDEA was not a loan of general use for the aspiring art majors of the late 1950s. It was designed to provide the country with specific defense oriented personnel, which included providing federal help to foreign language scholars and engineers. The act was repealed by 1962 due to 153 institutions protesting the McCarthyist Title X Section 1001 (f) of the NDEA, which was a mandate that all beneficiaries of the act complete an affidavit disclaiming belief in the overthrow of the U.S. government (Princeton.edu).

By 1970 the number of college graduates receiving bachelor's degrees had increased to 839,730. At this point, 68% of federal aid to college students was in the form of

grants, and a Pell Grant could cover two thirds of tuition annually at many universities. However, by the late 1970s tuition costs began to rise, and have continued to do so every year since (studentdebtrelief.us).

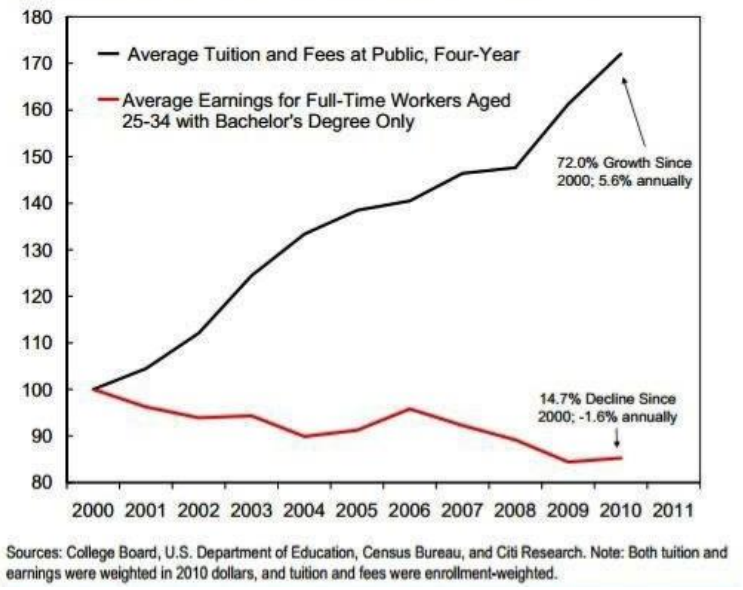
As of 2012, almost 30 percent of American adults hold bachelor's degrees, with women on the brink of surpassing men in educational attainment (nytimes.com). While it is certainly a positive that a much larger portion of the nation is attaining higher education, it also means that individuals have to work much harder than they would in years past to stay in the same socioeconomic stratum, while the costs of attaining that same degree continue to skyrocket. As shown by Figure 1, since 1985 college tuition has risen by 538 percent, compared to a consumer price index increase of just 121 percent (Deloitte University Press).

Figure I



Despite this significant increase in both the amount of degrees earned, as well as the cost of attaining them, there has actually been a slight decrease in the average earnings for full-time workers with a bachelor's degree, as shown in Figure 2.

Figure II



Sources: College Board, U.S. Department of Education, Census Bureau, and Citi Research. Note: Both tuition and earnings were weighted in 2010 dollars, and tuition and fees were enrollment-weighted.

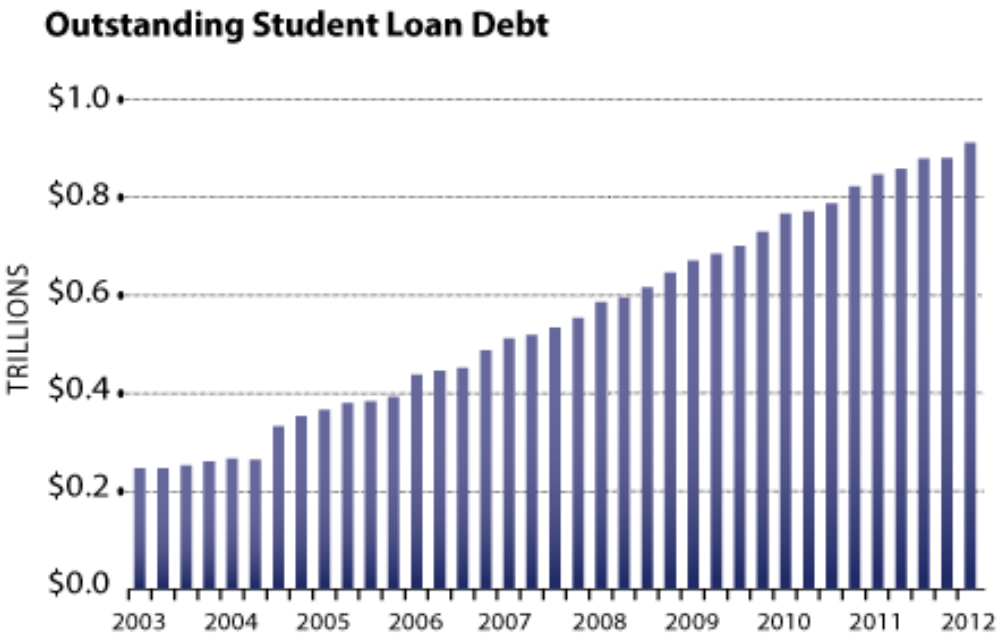
This ever-widening gap has been a major contributor to the large amount of debt that is carried by today's students and graduates. As the costs of tuition have continued to rise disproportionately to growth in household income, it has become necessary for several students to take out Federal Student Loans in order to pay for their various forms of higher education.

Currently, nearly 20 million Americans attend college each year, of which close to 12 million, or 60%, are borrowing annually to help cover tuition and other education-related costs (asa.org). As of 2014 there are approximately 37 million student loan borrowers with outstanding debt today. The Consumer Finance Protection Bureau reports that the total of this borrowing is over $1 trillion, of which $864 billion is held by the Federal government. The remaining $150 billion is held by a variety of private institutions (asa.org). This total is equivalent to over 10 percent of the bulk of America's housing-related debt at the brink of the mortgage meltdown. Even more alarming than the sheer amount of student debt is the rate at

which it is increasing. According to the New York Fed, "student loan debt is the only form of consumer debt that has grown since the peak of consumer debt in 2008. Balances of student loans have eclipsed both auto loans and credit cards, making student loan debt the largest form of consumer debt outside of mortgages" (newyorkfed.org). As shown in Figure 3, according to the St. Louis Fed, student loan debt has increased from roughly $250 billion in 2003 to over $950 billion in 2012, and now stands at over $1 trillion. This translates to an average increase in total outstanding student debt of 36.3% per year over the last decade.

With so much outstanding student debt and a decrease in the average salary of the students with bachelor's degrees holding the majority of that debt, typical chain of events generally involves delayed payments or default. Of the 37 million borrowers who currently have outstanding student loan balances, 14 percent, or about 5.4 million borrowers, have at least one past due student loan account (asa.org).

Figure III



According to the Information for Financial Aid Professionals website, the default rate by borrowers in the 2 year cohort, meaning "the percentage of Stafford loan borrowers who enter repayment on certain Federal Family Education Loan Program or William D. Ford Federal Direct Loan (Direct Loan) Program during a particular federal fiscal year (FY), October 1 to September 30, and default or meet other specified conditions prior to the end of the next fiscal year" ranges between 6.8%-15% for public universities in 2011, as shown by Figure 4. The average of default across all institutions in the two year cohort for 2011 was 10.0%.

Figure IV

Default Rates

Two-Year Cohort Default Rate

Calculated based on BORROWERS and the two-year window after entering repayment. Cohort is based on fiscal year.

Institutional Category	Cohort Yr 2007 Cohort Default Rate (CDR)%	Cohort Yr 2008 Cohort Default Rate (CDR)%	Cohort Yr 2009 Cohort Default Rate (CDR)%	Cohort Yr 2010 Cohort Default Rate (CDR)%	Cohort Yr 2011 Cohort Default Rate (CDR)%
Public					
Less than 2 Yrs	7.5%	6.7%	9.9%	10.0%	9.3%
2-3 Yrs	9.9%	10.1%	11.9%	13.4%	15.0%
4 yrs +	4.3%	4.4%	5.2%	6.0%	6.8%
Private Non-Profit					
Less than 2 Yrs	12.6%	14.1%	14.5%	13.6%	14.0%
2-3 Yrs	8.1%	8.2%	10.0%	8.5%	8.2%
4 yrs +	3.6%	3.8%	4.5%	5.1%	5.1%
Proprietary					
Less than 2 Yrs	12.0%	12.4%	13.7%	11.8%	14.1%
2-3 Yrs	12.5%	12.6%	14.8%	12.0%	13.9%
4 yrs +	9.8%	10.9%	15.4%	13.6%	13.4%
Foreign Schools	2.2%	2.2%	5.5%	2.9%	2.7%
Overall	6.7%	7.0%	8.8%	9.1%	10.0%

Furthermore, according to IFAP's Budget Lifetime Default Rate, which is "a projected percentage of the Stafford Loan dollars that are originated in the Federal Family Education Loan and Direct Loan Programs for a particular federal fiscal year

and that may default during the projected 20 year life of the loan cohort", the projected dollar percentage that will default ranges from 6.4% to 49.4% by institution, with an average of 18.4% of total Stafford loan dollars projected to be in default from Cohort Year 2011 over the course of the 20 year life of the loan.

The crucial difference regarding a default on student loan debt as opposed to other debts is the borrower's inability to escape eventual payment on student loan debt and the nature of the collateral for student loans. When a person buys a house or a car and defaults on the loan, the lender will simply repossess the asset that is collateralizing the loan. However, when a student defaults on his or her loan debt, this gives the lender, either the government or private companies, the opportunity to garnish his or her future wages as collateral for the defaulted loan. This paints a very bleak picture for several student borrowers who may not pursue a degree with a relatively high financial return on investment, or even worse, who fail to complete a degree at all. This wage garnishment has been known to go as far as taking students' tax refunds or Social Security checks to repay student loans, causing negative impacts on the quality of life of the borrowers. Also, once in default it is difficult for a student debtor to emerge from default back into normal repayment. It takes "nine approved monthly payments within 10 months for a loan to get out [of default], and those in default could face the loss of professional licenses, eligibility for federal jobs, part of their wages via wage garnishment and access to new student loans for graduate school" (ir.hmhco.com).

The combination of rising costs of education, lower average starting salaries for some degrees, large amounts of outstanding debt, inability to default, and a difficult

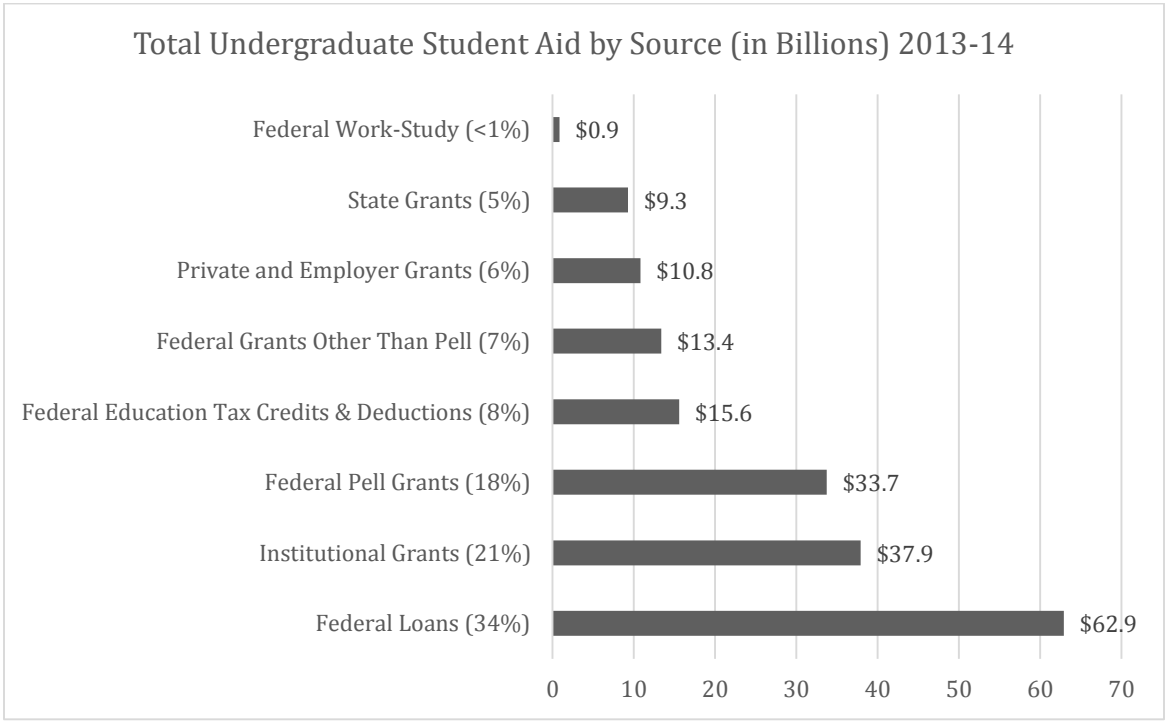
job market have framed a large student debt problem in America that is continuing to grow. In order to limit the negative impact on students, universities, and the overall American economy, it is necessary to approach this problem with a multifaceted solution on educational, governmental, and personal fronts.

STRUCTURE OF HIGHER EDUCATION FINANCE, SPECIFICALLY STUDENT DEBT

Postsecondary education is currently funded by a wide variety of financial instruments. Aside from scholarships and out-of-pocket payments made by students and families, the majority of postsecondary educational finance comes in various forms of loans and grants.

Figure 5 denotes the composition of total student aid for the academic year 2013-14.

Figure V



The U.S. Department of Education has two federal loan programs: The William D. Ford Federal Direct Loan Program and the Federal Perkins Loan Program. The William D. Ford Federal Direct Loan Program is the largest federal student loan program. Under this program the U.S. Department of Education is the lender, and there are four types of loans available:

1. Direct subsidized loans are loans made to eligible undergraduate students who demonstrate financial need to help cover the costs of higher education at a college or career school.
2. Direct Unsubsidized Loans are loans made to eligible undergraduate, graduate, and professional students, but in this case, the student does not have to demonstrate financial need to be eligible for the loan.
3. Direct PLUS Loans are loans made to graduate or professional students and parents of dependent undergraduate students to help pay for education expenses not covered by other financial aid.
4. Direct Consolidation Loans allow students to combine all eligible federal student loans into a single loan with a single loan servicer (studentaid.ed.gov).

Direct subsidized loans have slightly better terms, to assist the students with financial need, whom they are given to. Each school determines the amount that may be borrowed by each financially needy student, which may not exceed the student's financial need for educational purposes. The U.S. Department of Education pays the interest on Direct Subsidized Loans while the borrower is in

school at least half-time, for a period of six months after the borrower leaves school, and during a period of deferment or postponement of loan payments.

In addition to federal student loans, students and families can also obtain student loans from private companies. Where federal loans have fixed interest rates, private loans have flexible interest rates that are often higher than federal loans. Private loans also lack the 9-month deferral period before qualifying a loan as in default. Some private loan covenants even invoke a status of "in default" if a debtor misses only one payment on a loan (Woo, Weko). Private lenders also have the same privileges of repossession as the federal government when a debtor enters default, such as the ability to garner wages and Social Security earnings. Knowing this information, why would a student choose to be under such harmful sanctions as opposed to the comparatively lenient ones of the federal loans? Some students are unaware of the existence of the federal loan programs, while financial aid offices of some federal institutions suggest that new students attain private rather than federal loans. The largest cohort of private loan borrowers, though, are the students who have already borrowed the maximum amount of federal loans for a given time period and are still in need of educational finance. During the academic year of 2007-08, 63% of undergraduates borrowed from public sources exclusively. Another 27% borrowed from public and private sources together, while the remaining 9% borrowed exclusively from private sources (NCES). Additionally, the largest portion of borrowers (42%) who took out private loans either exclusively or in conjunction with public loans attended for-profit institutions (NCES).

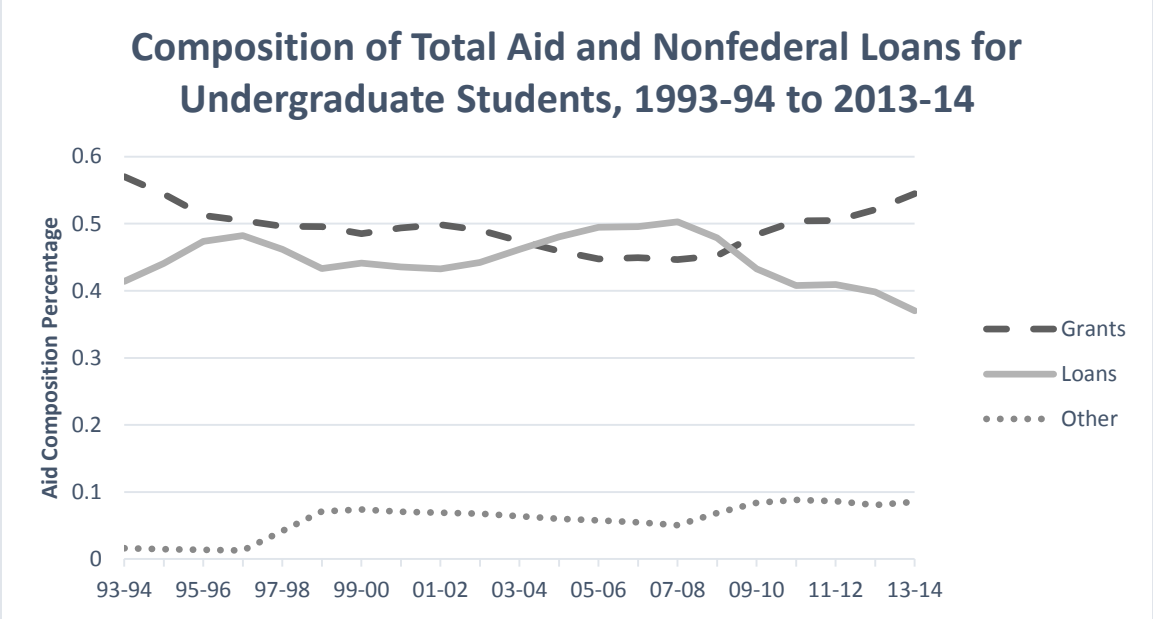
Another major portion of postsecondary education finance comes in the form of grants. Grants are often referred to as "gift aid" because they are free money to the student (studentaid.ed.gov). Grants can be given to the student from the federal government, state government, various educational institutions, and private/nonprofit organizations. Total Federal Grants have increased by 125% over the past 10 years and totaled $48.9 billion for the academic year 2013-14. State, institutional, and private/employer grants have increased 21%, 92%, and 64% respectively over the past ten years and totaled $73.7 billion for the academic year 2013-14. The combination of these forms of grants now comprises 54% of total aid for undergraduate students in 2013-14.

Federal Grants exist in the following forms: Federal Pell Grants (which are the largest category of grant), Federal Supplemental Educational Opportunity Grants (FSEOG), Teacher Education Assistance for College and Higher Education (TEACH) Grants, and Iraq and Afghanistan Service Grants.

The increase in grant aid for undergraduate students over the past several years has somewhat helped to stem the tide of increasing student debt. Specifically, grant aid per Full Time Equivalent undergraduate student increased 39% between 2007-08 and 2010-11, and by 8% between 2010-11 and 2013-14 (collegeboard). Grant Aid to graduate students has remained relatively stable for the past twenty years, hovering at roughly 30% of total aid. Federal grant aid has also risen and specifically assisted to lower the amount of Federal student loans. Federal grant aid rose from 30% of all grants to postsecondary students in 2007-08 to 45% in 2010-

11, and was 40% of grant aid total in 2013-14. Figure 6 summarizes the change in composition of total undergraduate student aid for the past twenty years.

Figure VI



(Trends in Student Aid 2014)

RISING COSTS AND DISTRIBUTION OF DEBT BY INSTITUTION TYPE AND DEGREE

In order to understand the overall impact of the increase of student debt and generate feasible solutions, it is crucial to understand which parties are affected. Several attempts have been made to quantify the distribution of debt by specific college, geographical region, type of institution, and degree program. Project on Student Debt attempted to list geographical regions, specific states, and specific institutions that have accumulated the most debt. For the study, statistics were provided by more than half of all public and private nonprofit four-year colleges in the United States. For-profit colleges were reluctant to share data for that particular study. Even in the case of the institutions that did report statistics to Project on

Student Debt, borrowing may have been understated since the colleges do not report transfer students. Although this survey is incomplete in the sense that it only reports data for public and private nonprofit four-year colleges, it does yield some interesting conclusions.

According to Project on Student Debt, using data for the class of 2012, the states holding the highest average student debt are concentrated to the Northeast and Midwest, and low-debt states are concentrated mainly in the West and the South. The following tables are from The Project on Student Debt by The Institute for College Access and Success. They reflect all private and public nonprofit institutions that were willing to disclose information on the current debt levels of their students.

TABLE I

High-Debt States	
Delaware	$33,649
New Hampshire	$32,698
Pennsylvania	$31,675
Minnesota	$31,497
Rhode Island	$31,156
Iowa	$29,456
Maine	$29,352
New Jersey	$29,287
Ohio	$29,037
Michigan	$28,840

TABLE II

Low-Debt States	
New Mexico	$17,994
California	$20,269
Arizona	$20,299
Nevada	$20,568
Wyoming	$21,241
Utah	$21,520
Tennessee	$21,775
District of Columbia	$22,106
Kentucky	$22,384
Louisiana	$22,789

Although the average debt levels by state vary almost 100%, from $17,994 to $33,649, even the lower end of the debt spectrum can have significant negative economic impact on the lives of graduating students.

When Project on Student Debt analyzed student debt by specific institution rather than by region or state, it received much less clear results. Student debt varies

between institution for a number of factors including difference in tuition and fees, living expenses, demographic makeup of the graduating class, the availability of need-based aid from colleges and states, colleges' financial aid policies and practices, the extent to which parents take out Parent PLUS loans, and, at public colleges, the extent of out-of-state enrollment" (projectonstudentdebt.org). Even colleges with similar prices that appear to be highly comparable institutions in many forms can have very different debt levels. For example, Chicago State University has relatively high average debt, while Northeastern Illinois University has relatively low average debt. Both of these are public four-year colleges in the same geographic region, with fees of about $8,000-$9,000, and the majority of their graduates come from low-income households (projectonstudentdebt.org).

Some of the discrepancy in the levels of student debt by college can be attributed to the inability of students and their families to grasp the full financial burden of specific colleges beyond tuition. Several other facets of the full cost of attendance that need to be addressed are the cost of books and supplies, living expenses, transportation, and miscellaneous personal expenses (projectonstudentdebt.org).

The variation in the average debt level per student in the 1,005 colleges that contributed information for the Project on Student Loan Debt ranges from $4,450 to $49,450. At the upper end of the spectrum, 122 colleges reported average debt of more than $35,000. The percent of students who have taken out student loans at these colleges also varies heavily by location, with forty-eight colleges reporting more than 90 percent of their class of 2012 graduating with debt (projectonstudentdebt.org).

Data available for the study was not comprehensive or reliable enough to specifically rank individual colleges with the highest or lowest debt levels. However, certain colleges have been identified with reported debt levels that fall into high and low debt ranges relative to the ranges reported by other institutions (projectonstudentdebt.org).

Public colleges generally have significantly lower costs and debt levels than private colleges, so this study lists high-debt public and private colleges separately. The average debt of the 20 high-debt public colleges listed in Table 3 have average debt ranging from $33,650 to $41,650, with in-state tuition and fees ranging from $5,800 to $16,150.

Table III

HIGH-DEBT PUBLIC COLLEGES AND UNIVERSITIES (ALPHABETICAL BY NAME)	
Chicago State University	IL
Coastal Carolina University	SC
Ferris State University	MI
Indiana University of Pennsylvania - Main Campus	PA
Kentucky State University	KY
Maine Maritime Academy	ME
Mansfield University of Pennsylvania	PA
Michigan Technological University	MI
Morgan State University	MD
New Jersey Institute of Technology	NJ
Pennsylvania State University (multiple campuses)	PA
Rowan University	NJ
Texas Southern University	TX
The College of New Jersey	NJ
The Richard Stockton College of New Jersey	NJ
University of New Hampshire - Main Campus	NH
University of Pittsburgh - Bradford	PA
University of Pittsburgh - Johnstown	PA
University of Pittsburgh - Pittsburgh Campus	PA
University of West Alabama	AL

The 20 high-debt private nonprofit colleges listed below in Table 4 have an average debt ranging from $41,500 to $49,450. Their tuition and fees range from $12,350 to $40,450 per year. Low-income enrollment is relatively low at these nonprofit private colleges (projectonstudentdebt.org).

Table IV

HIGH-DEBT PRIVATE NONPROFIT COLLEGES AND UNIVERSITIES (ALPHABETICAL BY NAME)	
Anna Maria College	MA
Becker College	MA
Bryant University	RI
Concordia University - Saint Paul	MN
Curry College	MA
Green Mountain College	VT
Lawrence Technological University	MI
LeTourneau University	TX
Marylhurst University	OR
Minneapolis College of Art and Design	MN
Quinnipiac University	CT
Regent University	VA
Ringling College of Art and Design	FL
Rose-Hulman Institute of Technology	IN
Sacred Heart University	CT
Saint Anselm College	NH
Trinity University	TX
University of New Haven	CT
Utica College	NY
Wheelock College	MA

Rather than try to analyze student debt by geographical region or specific institution, a broader context of analysis by type of institution yields more useful data. Project on Student Debt omitted for-profit institutions from the analysis of student debt, but students who attend for-profit institutions are currently amassing and graduating with some of the largest amounts of debt per student in the country.

RISING COSTS AND STUDENT DEBT LEVELS AT FOR-PROFIT INSTITUTIONS

For-profit schools appeared in response to the rapidly increasing demand for higher education and the rapidly increasing potential for new revenue that accompanied it. Private for-profit institutions have been the fastest growing part of the U.S. higher

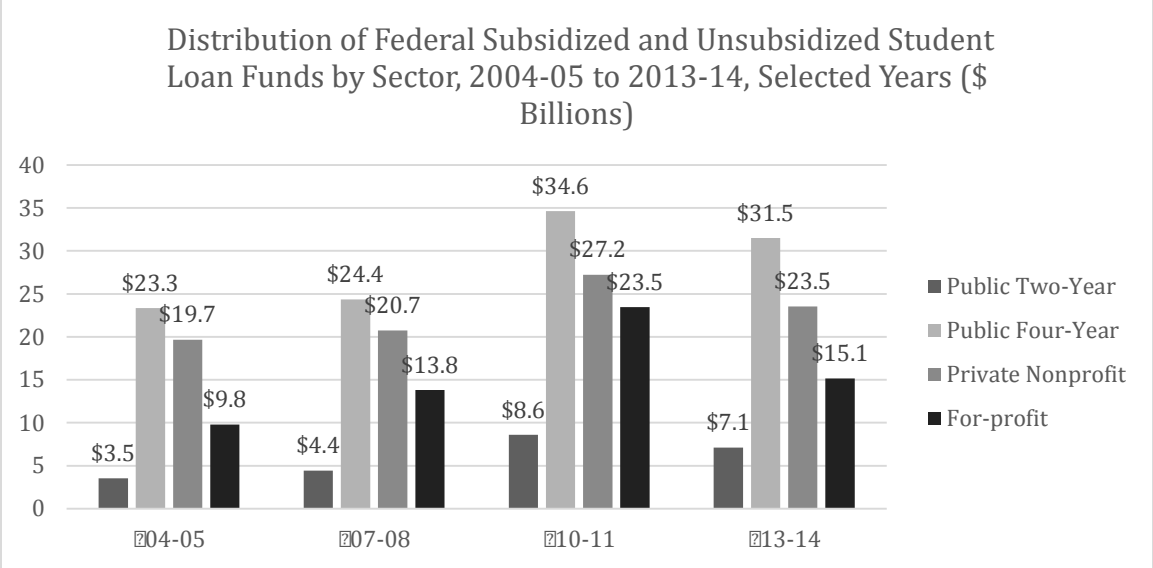
education sector in recent times. For-profit enrollment increased from 0.2% to 9.1% of total enrollment in degree-granting schools from 1970 to 2009, an increase from 18,333 in 1970 to 1.85 million in 2009. For-profit institutions educate a larger fraction of minority, disadvantaged, and older students, and they have greater success at retaining students in their first year and getting them to complete short programs at the certificate and associate degree level. More importantly, students who graduate from for-profit institutions have far greater amounts of student debt and a much higher default rate than their contemporaries in public and nonprofit institutions (Deming, Goldin, Katz, NBER).

The emergence of for-profit institutions can be partially attributed to the withdrawal of state and federal funding from public universities over the past few decades. As the capacity of public universities decreased with the withdrawal of state funding, an opportunity appeared for for-profit institutions to fill the educational supply shortage.

For-profit institutions are highly dependent upon Federal grants and loans. In fact, federal grants and loans accounted for 73.7% of the revenues of Title-IV eligible private for-profit higher education institutions in 2008-09 (NBER). For-profit institutions are accounting for a disproportionate share of federal student loans compared to other postsecondary education institutions. In 2008-09 for-profits accounted for 26% of federal loan disbursements even though they only enrolled 12% of total students who took out federal loans (NBER). As Figure 7 illustrates, for-profit institutions have gained an increasing share of federal loans over the last

decade, while public and private nonprofit shares have remained relatively static after considering the percentage of loans gained by for-profits.

Figure VII



For-profit institutions cost more to attend than public or private non-profits. This is to be expected to an extent, because for-profits do not receive federal or state funding like public universities, and they also do not receive alumni endowment in the manner of public and private non-profits. However, for-profits are not limited by the same legal "non-distribution requirements" that limit private non-profit institutions (NBER). For example, some of the largest players in the for-profit educational industry pay their top executives salaries that far exceed those of the presidents of public and private non-profit universities. Among the large for-profit chains, Andrew Clark, CEO of Bridgepoint Education, Inc., received more than $20 million in 2009, and Charles Edelstein, co-CEO of the Apollo Group, Inc., earned more than $11 million. While the high costs of attending a for-profit cannot be

solely attributed to large executive salaries, this does illustrate a fundamental difference in the business model of a for-profit institution as opposed to a non-profit. For-profit entities, by definition, are chiefly concerned with maintaining high levels of profit and creating value for their shareholders, or else they cease to exist. While appropriate in theory, this does not always correspond to ethical practice in the field of education, whose chief concern is the betterment of its students through quality educational practices, not the obtainment of the maximum amount of their money. In fact, several for-profit institutions and chains have been the subject of federal investigations for highly aggressive and sometimes predatory recruiting practices, such as recruiting disabled individuals who would not be able to competently participate in educational activities, but would still be able to obtain student loans to pay for education.

Like any other for-profit entity, postsecondary for-profit institutions must maintain healthy consistent levels of revenue in order to survive. This causes a large part of the budget of for-profit schools, and therefore the costs passed on to students, to be related to attracting more students/customers, rather than actually educating them. A large amount of the resources of for-profits is devoted to sales and marketing. In 2009 a study of 13 large national chains of for-profits found that advertising expenses accounted for 11% of total revenues, and sales and marketing (including advertising) accounted for 24% of overall revenue (NBER). This translates to an advertisement cost of roughly $4,000 per student per year in 2009. In the same year, annual in-state tuition at a public university was roughly $7,000. Students at for-profit universities in 2009 could have paid for 57% of their annual tuition at a

public university for the amount of money that they were forced to pay to support the advertisement costs of their respective for-profit institutions, none of which directly contributed to their education. While advertisement is a necessary component of any for-profit entity, this is a questionable use of such a large amount of funds and is contributing to lining the pockets of the shareholders at the expense of the students/customers.

This is not true of all for-profits though, and several have proved competent in preparing students for their respective desired careers. However, almost all for-profit institutions are more expensive than their public counterparts, and several are more expensive than private nonprofits as well. According to the National Center for Education Statistics' (NCES) International Postsecondary Education Data System (IPEDS) tuition at for-profit institutions in 2009-10 was $13,103 on average, as opposed to $2,510 at public two year colleges, $5,096 at public four-year colleges, and $24,470 at private nonprofit four year colleges. While this information shows the disparity in levels of tuition, the real problem that follows this is the levels of student loans by institution. In the same academic year, for-profit students had an average of $11,415 in federal loans, compared to $759 at two-year public colleges, $3,512 at four-year public colleges, and $5,769 at private nonprofit four-year colleges. The data is summarized below in Table 5.

Table V

Student Characteristics by IPEDS Institution Type, 2009/10

	For-Profit Institutions	Two-Year Public Colleges	Four-Year Public Colleges	Four-Year Private Non-Profit Colleges
Federal Loans per student	$11,415	$759	$3,512	$5,769
Pell Grant per student	$2,370	$773	$738	$632
Tuition (in-state)	$13,103	$2,510	$5,096	$24,470
Number of institutions	2,995	1,595	690	1,589

(National Bureau of Economic Research)

For-profit postsecondary schools have a longer period of unemployment following graduation and lower average starting salaries than public and private nonprofit. When these variables are paired with the significantly higher amount of federal loans taken out by for-profit students, the result is a significantly higher default rate. For-profits account for 47% of all current student loan defaults. Default rates have been rising in recent years particularly for the larger for-profit chains (NBER).

STUDENT DEBT AND THE RISING COSTS OF PUBLIC AND PRIVATE NONPROFIT POSTSECONDARY INSTITUTIONS

Between the academic years of 2013-14 and 2014-15, the percentage increase in published tuition and fees in all sectors were lower than the average annual increases in the previous 5, 10, and 30 year periods. Increases in the price of postsecondary education are not accelerating; they are accumulating (collegeboard). After adjusting for inflation, the average published price for in-state students at four-year universities is 42% higher than it was 10 years ago, and more than 100% higher than it was 20 years ago. Average inflation-adjusted private nonprofit tuition has increased 24% over the past 10 years and 66% over the past

20 years (collegeboard). Most importantly when considering the affordability of postsecondary education, this steep increases in the price of such a large investment has not been accompanied by an increase in real household income in the U.S. in the past decade, except for at the very top end of the income spectrum.

As shown in Figure 8, Public Four-Year students have accounted for the largest overall portion of federal loan debt in the past decade, as demonstrated by the two largest categories of federal loans: subsidized and unsubsidized Stafford Loans.

Figure VIII

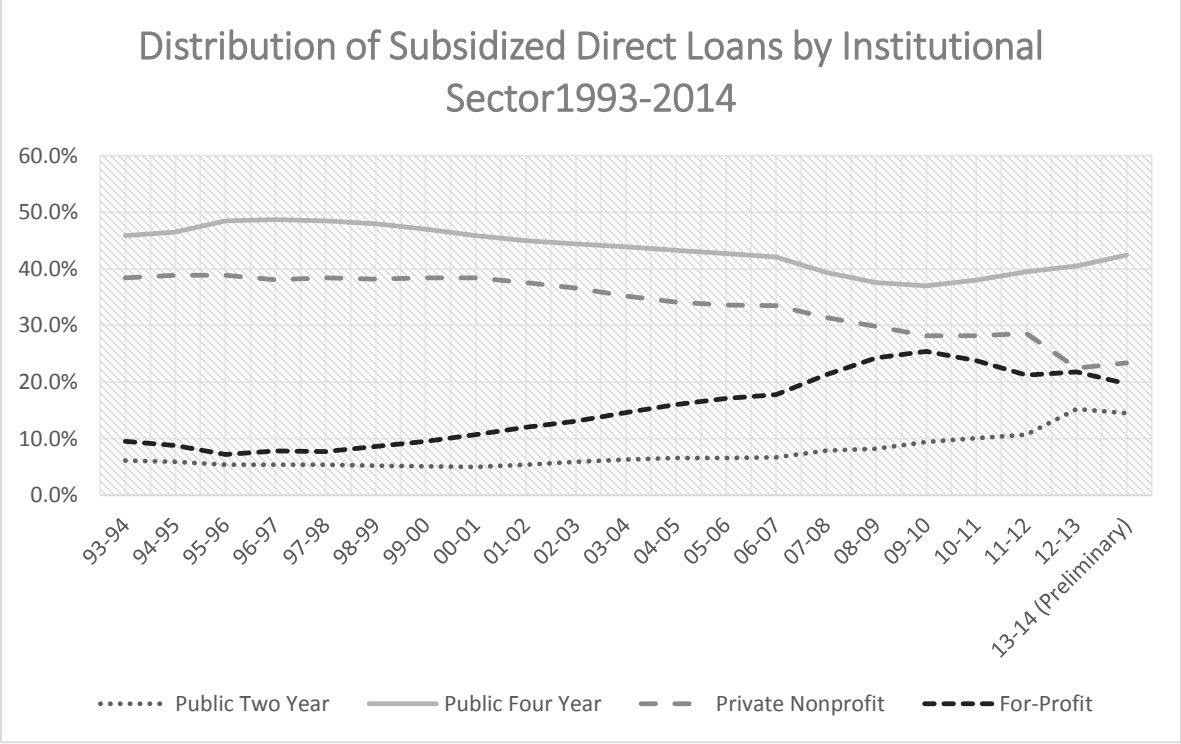
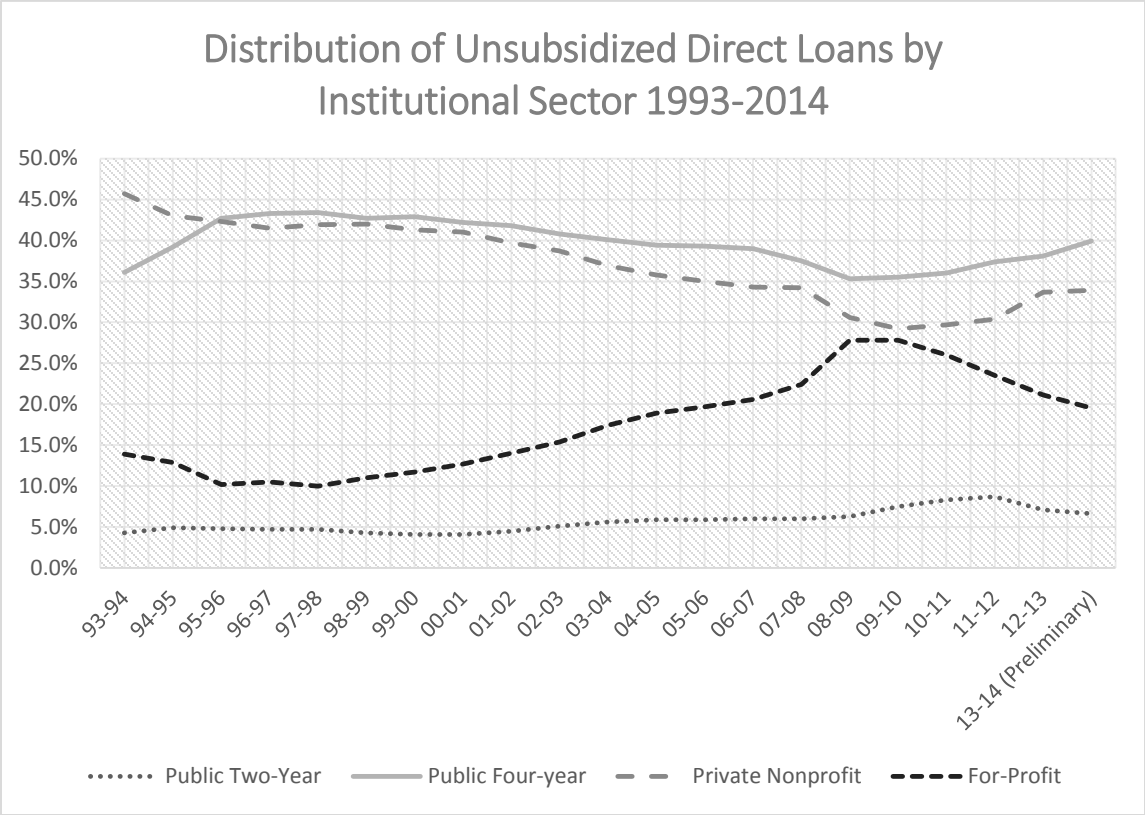


Figure IX

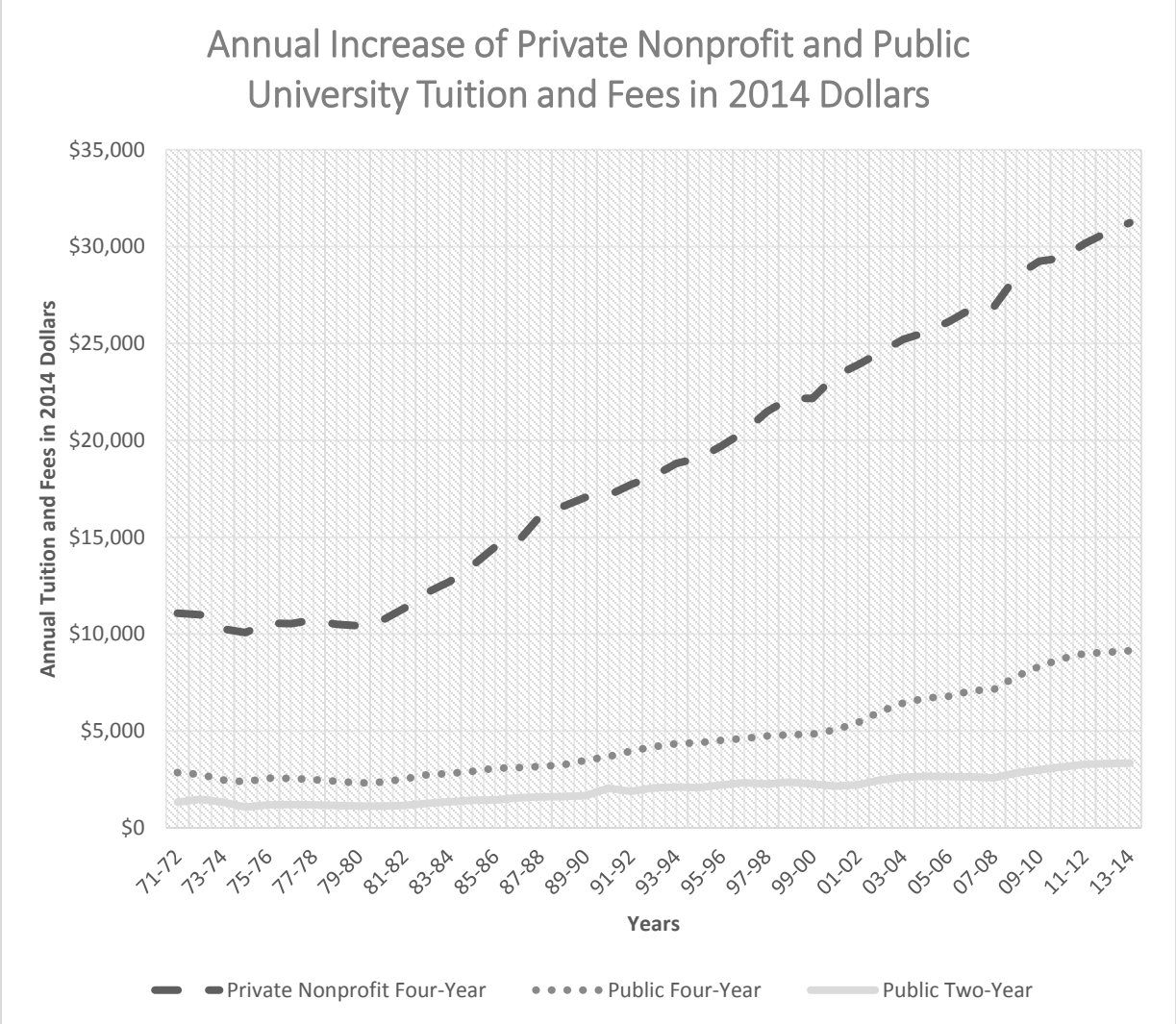


Public two- and four-year institutions account for 50% of the federal student loan dollars issued in 2013, and almost 72% of all fall college enrollments in the United States. Although public universities account for the largest amount of student debt, the ratio of debt to total enrollment is much more in balance in these institutions as opposed to for-profit institutions, since public and private nonprofit institutions enroll 72% of all college students in the US and account for 50% of federal loan debt, compared to for-profit institutions, who enroll 12% of all students in the U.S. but account for 26% of all federal loan debt.

The cost increase of public and private nonprofit postsecondary education can be attributed to several varied factors. Although it would seem logical for the rapidly

increasing student loan debt to parallel the rising costs of college tuition, this is not always the case. However, there necessarily must be a level of correlation between the cost of running an institution and the price paid by the student to attend it. Figure 10 shows the increase in Public and Private Nonprofit tuition and fees in 2013 dollars.

Figure X



As Figure 10 illustrates, all forms of public and private nonprofit postsecondary

education have seen consistent increases in tuition since 1980, with private nonprofit institutions leading the monetary growth by a wide margin. Private nonprofit tuition and fees increased from roughly $10,000 per year in 1980 to $32,000 per year in 2014, for an average annual increase of roughly 3%, as shown in Table 6. Although private nonprofit tuition and fees have grown to much higher levels than public institutions, public four-year institutions have shown higher consistent annual percentage growth in tuition and fees, for an average annual growth since 1984 of 4% per year, roughly 25% more annual growth in tuition and fees than private nonprofit institutions.

Table VI

Average Annual Percentage Increases in Inflation-Adjusted Published Prices by Decade, 1984-85 to 2014-15					
	Tuition and Fees			Tuition and Fees and Room and Board	
	Private Nonprofit Four-Year	Public Four-Year	Public Two-Year	Private Nonprofit Four-Year	Public Four-Year
1984-85 to 1994-95	4.0%	4.4%	4.6%	3.2%	2.3%
1994-95 to 2004-05	3.0%	4.0%	2.2%	2.7%	3.0%
2004-05 to 2014-15	2.2%	3.5%	2.5%	2.1%	2.8%

(trends in college pricing)

When referring to the "cost" of education it is important to remember that any tuition and fees a student pays to attend a university is revenue to the university. The term "cost" to the university only refers to its operating costs, and not the price that the student pays, which consists of tuition and fees (Slaper, 4). In order to understand the price paid by the students to attend a university, the first variable to

examine is the cost of delivering higher education to the student. Several economists have argued that universities are only remotely driven by market forces; however, the recent "arms race" for premium on-campus facilities, such as expensive athletic facilities, dining halls, and student exercise facilities, demonstrates schools' need to respond to external market forces (Slaper).

One of the most notable increases in cost has come from the rising number of university administrators. This increase in cost is isolated almost exclusively to four-year universities. Some reports have shown that between 1993 and 2007, the administrative category at the nation's leading institutions had the highest increase in spending per student, at 61.2%, compared to an increase in the cost of instruction of 39.2% and the cost of research and service, which increased 37.8%. A large part of the reason for this increase in administrative cost is the creation of new offices, such as Diversity, Equity and Inclusion, Student Counseling, Global Engagement, and Sponsored-Research Programs (Slaper). In response to this increase in cost, university administration have cited the need to address various issues of diversity, especially to remain in compliance with federal legislation regarding the issue. However, while this is a large cost for current students, and can be easily addressed by the reduction of university spending on offices not mandatory for the existence of each major's core curriculum, the reduction in spending would not serve to deliver a large financial benefit to each student. In a study conducted by Indiana University, which had shown significant growth in the cost and numbers of positions within university administration, a reduction of "administrative bloat" at all public four-year universities by 5% would have only saved the average student $107 in 2007. If

the analysis presented by this report is correct, then even a 20% reduction in university spending on administrative expenses and salaries would only result in a $430 reduction in cost to each student, less than the average cost of a semester's textbooks.

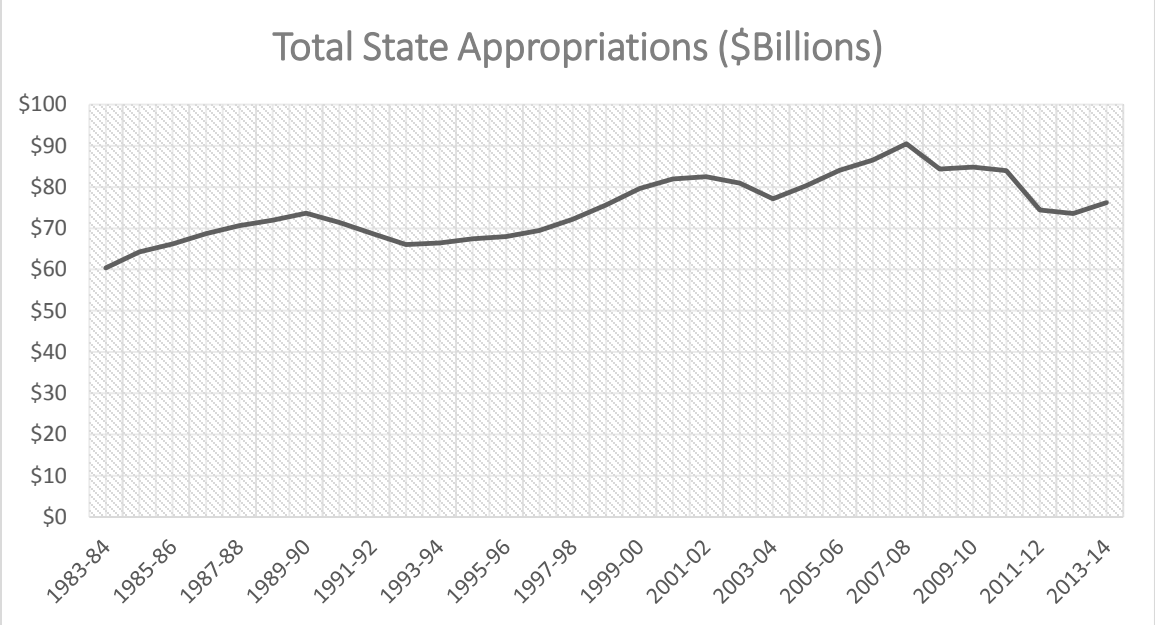
FUNDING OF PUBLIC AND PRIVATE NONPROFIT POSTSECONARY EDUCATIONAL INSTITUTIONS

Operating costs of universities are funded through payment of tuition and fees by students, endowments from alumni, and, in the case of public universities, funding from state governments. The financial crash of 2008 caused the withdrawal of a large amount of endowment funding by alumni, and states have begun to withdraw a large amount of funding from public two and four-year universities. This withdrawal of funding on both fronts has necessitated that universities pass along a higher amount of their operating costs to students in order to maintain functionality at the current levels.

State appropriation of funding for postsecondary education was in a period of decline from 2000-2004, saw relatively stable positive growth from 2005-2008, and has been decreasing since 2008. Most notably, total state appropriations have declined by 19%, from $88.7 billion (in 2013 dollars) in 2007-08 to $72 billion in 2013, as shown in Figure 11 below, while Full-Time Equivalent (FTE) enrollment in public institutions increased by 11% over these five years (collegeboard.org). Current state appropriations per FTE student are also varying widely by state, from $3,184 in New Hampshire and $3,494 in Colorado to $14,045 in Wyoming and $18,857 in Alaska. This widening gap of decreases in funding plotted against consistent increase in FTE enrollment is directly shifting the cost of education away

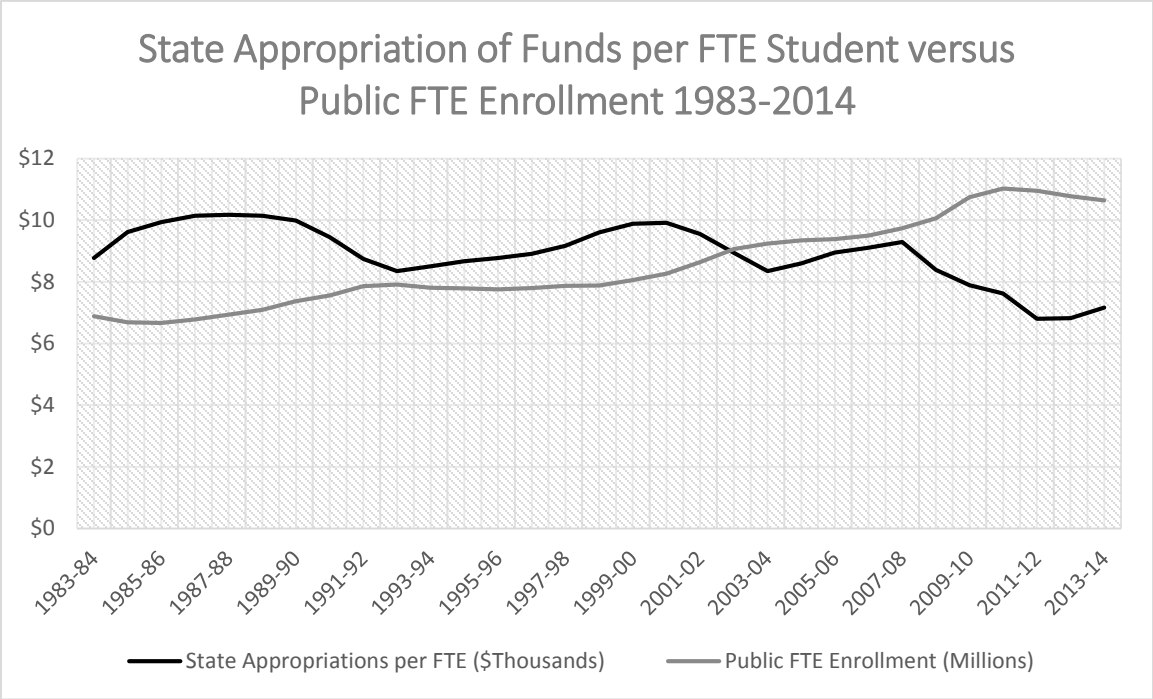
from the state and onto the student, and therefore increasing the national level of student loan debt.

Figure XI



Data for the annual percentage change in state appropriations for higher education per FTE student and percentage change in inflation-adjusted tuition and fees at

Figure XII

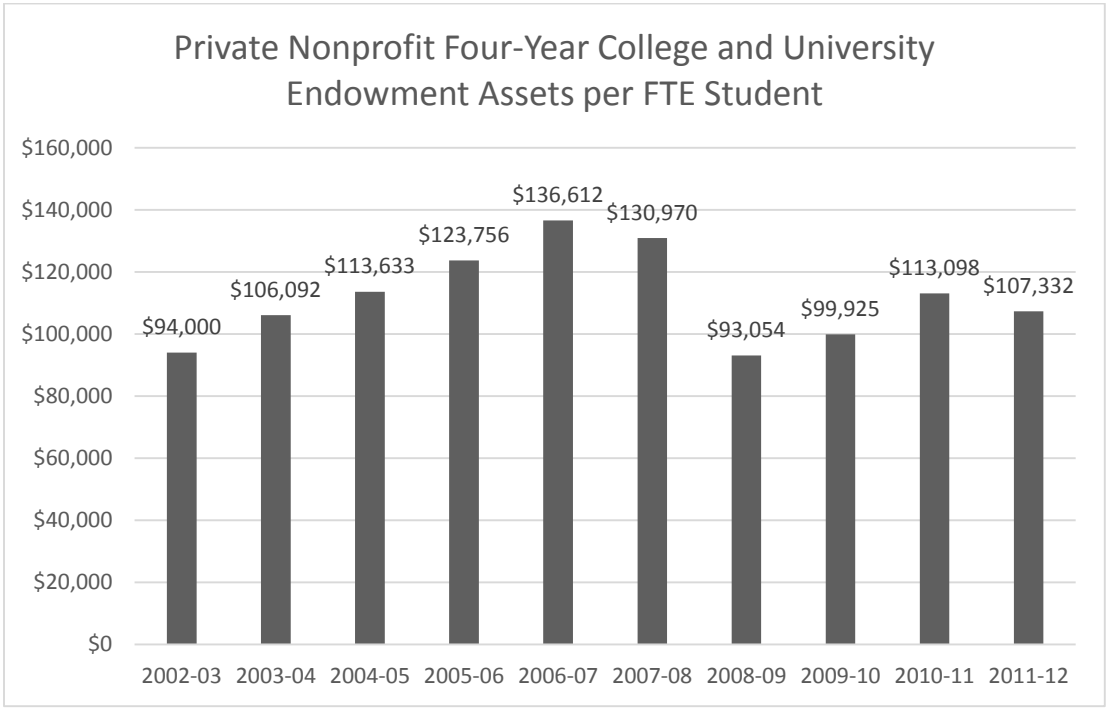


public four-year institutions from 1982-2013 is displayed in the Appendices. Federal funds from the American Recovery and Reinvestment Act supplemented normal state funds in three fiscal years, increasing state appropriations by the following: $2.4 billion in 2008-09, $4.8 billion in 2009-10, and $3.0 billion in 2010-11 (collegeboard.org).

One of the most notable statistics within the data of state appropriations per FTE student (in thousands) is the decrease of state funding per FTE student from $9,700 in 2000-01 to a current all-time low of $6,600, an overall decrease of 32% in state funding per FTE student within the past 14 years. During the same time period, overall public FTE enrollment has increased from 8.3 million to 10.8 million, an increase of almost 31%.

Alumni endowments are a large portion of the funding of private nonprofit institutions, and overall endowment funding suffered a severe withdrawal following the 2008 financial crisis. Total endowments assets are currently recovering, but are still far below their all-time high. The average endowment per FTE student at private nonprofit four-year institutions peaked at roughly $136,000 (in 2011 dollars) in 2006-07 and fell to $93,000 in 2008-09. By 2010-11, the average endowment assets per FTE student had regrown to $107,000 as shown in Figure 13 below (collegeboard). Much like the withdrawal of state funding from public institutions, the withdrawal of alumni endowment assets from private nonprofit institutions has forced these colleges to pass on more costs to their students in the form of higher tuition and fees.

Figure XIII



Concurrent with the problem of increasing tuition and fees is the lack of a proportional increase in real household income to support such a heavy investment. In fact, over the past 30 years, there has been no increase in real household income other than at the very highest end of the income spectrum. The 2013 mean income for the 20% of families with the lowest income in 2013 represents an 8% decline in real income over the course of a decade. The median average household income in 2013 was $63,916, which represented a real decrease of 5% over the past decade. The top 5% of families yielded a real increase of 1% over the past decade, for a 2013 mean income of $358,722 (collegeboard). These statistics tie into the much larger problem of the increasingly unequal distribution of income, which is beyond the scope of this paper. However, what is important to note from these findings is that with the exception of the most wealthy families, all other households are losing real income over the past three decades while higher education tuition and fees has consistently increased, causing a widening gap of educational finance which has been filled by student debt, crippling some of the best students and potential contributors to society. The stark postsecondary landscape that is painted by all these facts has caused several people to ask "Is college still worth the investment?"

IMPACT OF STUDENT DEBT

In the next section of the paper, we will address whether the cost of college is still worth the investment. Before determining that, however, we must determine the effects that the current levels of student debt are having on the involved as well as the uninvolved parties. This section will focus on the effects of the current trends of

student debt on borrowers and families, the future of postsecondary education, and the American economy.

It is a commonly accepted economic premise that each individual has a certain capacity for debt relative to their personal income, various assets, and solvency. As the debt capacity of students is quickly eaten up by student loan debt, it removes the amount of capacity that would otherwise be used for the purchase of a house, cars, or starting a small business. In this sense, student loan debt is hampering the growth of the economy by delaying or eliminating purchases of tangible assets and other forms of economic stimulation.

It is difficult to draw a full picture of the economic impact of the current levels of outstanding student debt for several reasons. The U.S. Department of Education releases default rates on federal student loans only once a year, and only for borrowers who have not made the required payments for at least 270 consecutive days during the two- and three-year periods after they graduate or drop out. These figures do not include students who get extensions on their loans, which is another major sign of economic distress. Additionally, the data that is currently being analyzed on the effect of student debt on delaying or eliminating housing purchases uses debt levels from the early 2000s, since it is just now becoming time for those former students to purchase (or in this case, not purchase) a new house and begin a family. The debt levels of these earlier years were a fraction of the current outstanding balance, so the effect that they are portraying currently on the housing market could be magnified exponentially by the time that today's student debtors begin to consider purchasing a house. This is due to the fact that not only will many

more students be in debt than the ones who were in debt in the early 2000s, but the debt level per student has increased significantly, which will do even more damage to individual credit scores and be even more exclusionary toward eligibility for housing mortgages and automobile loans.

Although it is not currently possible to derive the full impact of the current levels of student debt on the economy, the current data on housing and automobile purchase decline can be used as leading indicators of the impending consequences if student debt levels are not lowered. These are two of the main areas of study for the economists of the New York Fed, because the delays in housing and car purchases imply much more serious economic consequences in the near future. If college students have to take on student debt to the extent that it disqualifies them for an initial home mortgage loan, they are forced to live with friends or family. This living situation deters several marriages due to the inability of either hypothetical spouse to purchase a home for the couple. The delays in housing purchases will have ripple effects and lower activity within the construction, realty, and several forms of raw material industries. Almost 1.5 million Americans are employed in the real estate industry, not counting those employed in rental and leasing services, and nearly 6 million people work in the private-sector construction industry (young invincibles). Additionally, the government will suffer the loss of property taxes that would otherwise be paid on the new houses of these former students whom, as shown later, are traditionally in the highest stratum of taxpayers in the United States. Housing construction and purchase delays will also delay several births due to the delays in marriage. As mentioned in the section on the social/societal returns from

higher education, parents with higher levels of education tend to be good parents and raise children with high potential to contribute greatly to society, both financially and qualitatively. Therefore, by limiting students' ability to purchase houses at the historically normal stages in life, the amount of student loan debt is effectively delaying the birth of a generation of American society's greatest contributors.

As mentioned earlier, several comparisons have been drawn between the large amount of outstanding student loan debt and the mortgage crisis of 2008. While there is little more than one tenth of the debt of the mortgage crisis currently outstanding in student loans, this debt is heavily concentrated within a demographic that is a high driver of economic growth. People in their 20s and 30s typically account for a large portion of the purchases of new houses each year, but since they are now also holding the largest amount of student debt, they have been unable to purchase the typical number of new homes, which has caused housing purchases to fall far below their historical norm.

Before the 2008 financial crisis roughly 30% of 27-30 year-olds had debt issued which was backed by a home, and 33% of people in that same age bracket had student debt as well. Currently, however, the percentage of 27-30 year-olds with mortgages has plummeted to around 22% according to New York Fed data, which parallels trends identified by the Census Bureau. Within that same age bracket, the highest drop in percentage of adults who have mortgages was within the category of those who have student loans as well. In the past students with student loans tended to be more likely to have home mortgages, due to higher credit scores from

successfully paying off student loans, whereas now they have mortgages at a much lower rate than those with no student loan debt.

The problem with the delay of housing purchases rests not only with the lack of desire by the former student to purchase a home while already encumbered with student loan debt, but also with the debt to income ratio that is likely to exclude several of the willing student debtors from qualification for an initial mortgage loan. Typically, in order to take out a mortgage loan, a borrower must not already have a significant amount of debt. In past years when the average amount of student debt per individual was lower, the successful repayment of loans would raise the student's credit score and make them more qualified for a mortgage loan. Now, however, as the amount of student debt per individual has increased dramatically, it has increased these students' debt-to-income levels to undesirable proportions, and the increasing occurrence of default on these loans is ruining students' credit scores. A study by Young Invincibles analyzed the current levels of student debt compared to the requirements for obtaining home mortgages. The Federal Housing Administration calculates eligibility for mortgage loans by using two different debt-to-income ratios, referred to as the front-end ratio and the back-end ratio. The front end ratio refers to how much homebuyers spend on housing divided by their total income. The back-end ratio includes not only housing payments, but the total amount of recurring debt owed by the household, such as car loans, personal loans, student loans, and credit cards (young invincibles). The Federal Housing Administration sets a guideline of 29/41 front-end-to-back-end ratio. For example,

when considering a monthly housing payment of $850 paid from a monthly income of $3,000, the individual's front end ratio is 28.3%.

$$\frac{\text{Housing Payment (\$850)}}{\text{Monthly Income (\$3,000)}} = 28.3\%$$

When factoring in a monthly student loan payment of $300, an average payment for the 2003-2004 cohort of student debtors repaying over a ten year period, as well as a monthly credit card payment of $50, we find:

$$\frac{\text{Housing Pmt (\$850)+Credit Card(\$50)+Student Loan (\$300)}}{\text{Monthly Income (\$3,000)}} = 40\%$$

The hypothetical debtor barely qualifies for the FHA guidelines capping debt payments at 41% of monthly income, and would not meet several of the back-end requirements for private lenders, who have habitually cut back-end eligibility at close to 36%. The following sensitivity analysis performed in the study illustrates the debt-to-income variance for single borrowers.

Table VII

		Salary Percentile				
		90th	75th	50th	25th	10th
	No Loans	0.2	0.27	0.43	0.78	39.19
Loan Percentile	10th	0.2	0.28	0.45	0.82	40.77
	25th	0.21	0.31	0.46	0.84	42.19
	50th	0.22	0.33	0.49	0.89	44.51
	75th	0.23	0.35	0.52	0.94	46.87
	90th	0.25	0.35	0.55	1.01	50.33

As shown in Table 11, borrowers in the 50th percentile of salary with any loans at all will be almost guaranteed to not qualify for and FHA mortgage. The difficulty of qualifying for mortgages has also increased over the last decade. The average single debtor in 2002 with the median amount of debt would have a debt-to-income ratio

of .43 compared to .49 today, excluding them from eligibility for almost any form of mortgage. The analysis goes on to paint an even bleaker picture for two-debtor households, demonstrating that only households with less than average debt for both borrowers, or who exceed the median household salary, will qualify (young invincibles).

These restrictions due to student debt are having a direct impact on the housing market, which is crucial to the overall health of the national economy. In the first quarter of 2012, private residential investment and consumption of housing services made up 4.9% of US GDP. Even today, several years after the housing market crash of 2008, the private residential investment portion of the housing industry stands at roughly 2.2% of GDP, far below its historical average of 4.5%. If residential investment and consumption were to return to historical levels, roughly 2.9 million direct jobs would be created.

A similar story is occurring for auto loans as well. In 2008, 37.6% of 25-year-olds with student debt also had an auto loan, but as of 2013 that number has fallen to 31.4% (NYtimes.com).

In addition to the purchases of these tangible assets, the large amount of student loans outstanding is crippling the startup industry. The capacity of a startup's founders to take on debt is essential to the success of companies founded by newly-minted undergraduates, graduates, or MBAs who may not have the access to venture capital or angel funding necessary to otherwise begin a startup.

WHAT SHOULD POSTSECONDARY EDUCATION OFFER TO THE INVESTOR?

It is a common anecdote in many American households that children should go to college to get a better job. In the eyes of many current students, that is the sole reason they are attending their respective postsecondary institutions. However, this is not the sole goal of higher education. It is the hope of most postsecondary institutions to increase the social capital of their students and cause them to enter the world as well-rounded, socially and morally responsible individuals. The creed of our own University of Mississippi states that the university is "a community of learning dedicated to nurturing excellence in intellectual inquiry and personal character in an open and diverse environment", mentioning nothing about potentially higher salaries for graduates. College can mean many different things to many different students depending on their stage in life, chosen institution, and course of study. It can have equally varied meanings to the teachers and administrators who make its existence possible. For the sake of this discussion, we can summarize the goals of postsecondary education as to increase the social, moral, and intellectual quality of their students, and allow them to be more conscious and productive members of society. In order for students to achieve these goals, college must also have a high enough financial payoff for them to be able repay their student loans within a reasonable time frame and not suffer a diminished standard of living that would impact the fulfillment of their respective social output. Furthermore, within a society of equality, it is equally important that this opportunity for increase in personal and social capital is available to all members of the population, in order to benefit the entire society. With that framework in mind,

it is necessary to ask if the current structure of postsecondary education is yielding results that are consistent with these goals.

IS THE INVESTMENT STILL WORTH THE COST?

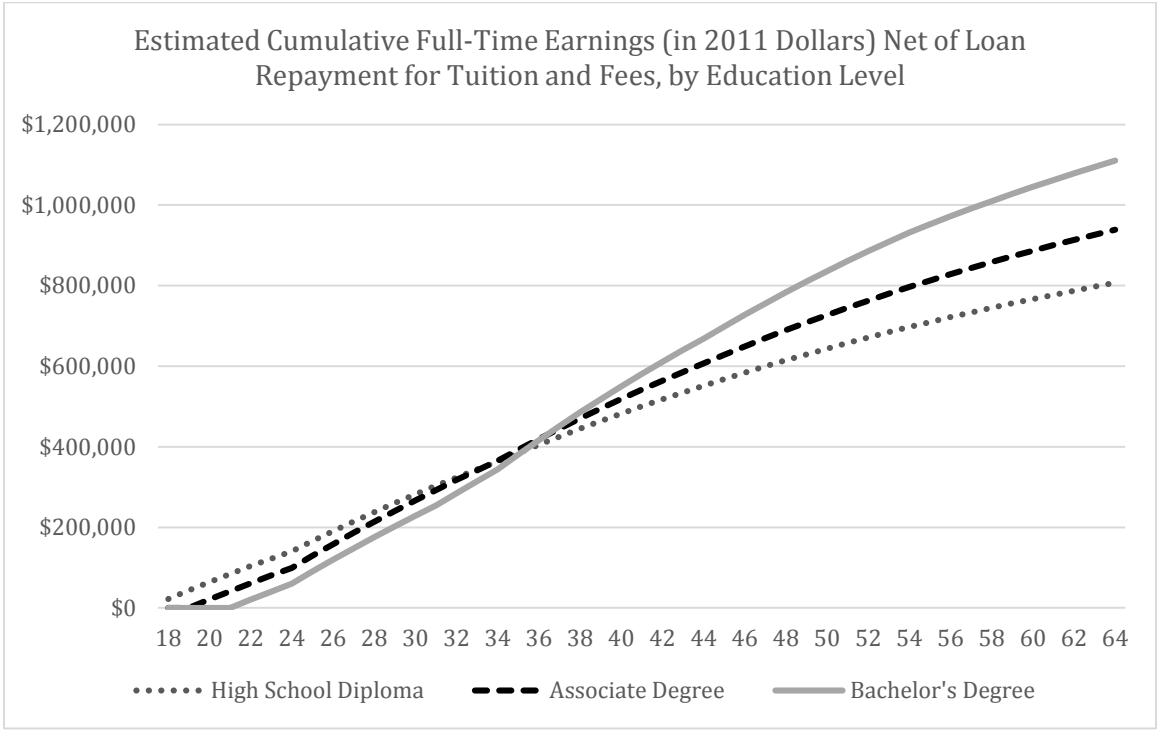
Given the rising costs of college and the inability of many students to finance their education with any means other than student debt, it is logical to ask if the potential returns on a bachelor's degree still justify the weighty investment. In order to determine this, the returns of postsecondary education can be divided into social/societal and individual categories and then compared to their respective costs.

INDIVIDUAL RETURNS OF POSTSECONDARY EDUCATION

The most commonly cited reason to go to college is because the student will get a better job and make more money. While this is certainly true, as is shown later, there are several other less tangible benefits to the individual from attaining postsecondary education. Since postsecondary education is so expensive, the first factor to consider when determining its worth is the financial payoff from investing multiple years and such large sums of money. Salaries are higher across the board for each level of postsecondary education when compared to individuals with only high school diplomas. Individuals with some college education but no degree earned 14% more than high school graduates working full time year-round. Median earnings were 27% higher for individuals with associate degrees, 65% higher for individuals with bachelor's degrees, twice as high for individuals with master's degrees, and 2.6 times as high for individuals with doctoral degrees (Education Pays 2013).

One of the primary costs of postsecondary education are the wages forgone because the student attended college rather than entering the workforce directly after high school, especially when factoring in the amount of debt that a student may have to take on to attain various degrees. As shown in Figure 14 below, compared to a high school graduate, the median four-year college graduate who enrolls at age 18 and graduates in four years will earn enough by age 36 to compensate for four years removed from the labor force and for borrowing the full tuition and fee amount without any grant aid (Education Pays 2013). Additionally, the median associate degree recipient who earns a degree in two years and borrows the full amount of tuition and fees will recoup the amount borrowed and compensate for two years out of the work force by age 34.

Figure XIV



Aside from the salary premiums earned by graduates of postsecondary educational institutions, higher levels of education directly correlate with lower levels of unemployment. The table below summarizes the unemployment level by level of education since 1992. The level of unemployment decreases consistently with every increase in educational level for the past twenty years (Education Pays 2013).

Table VIII

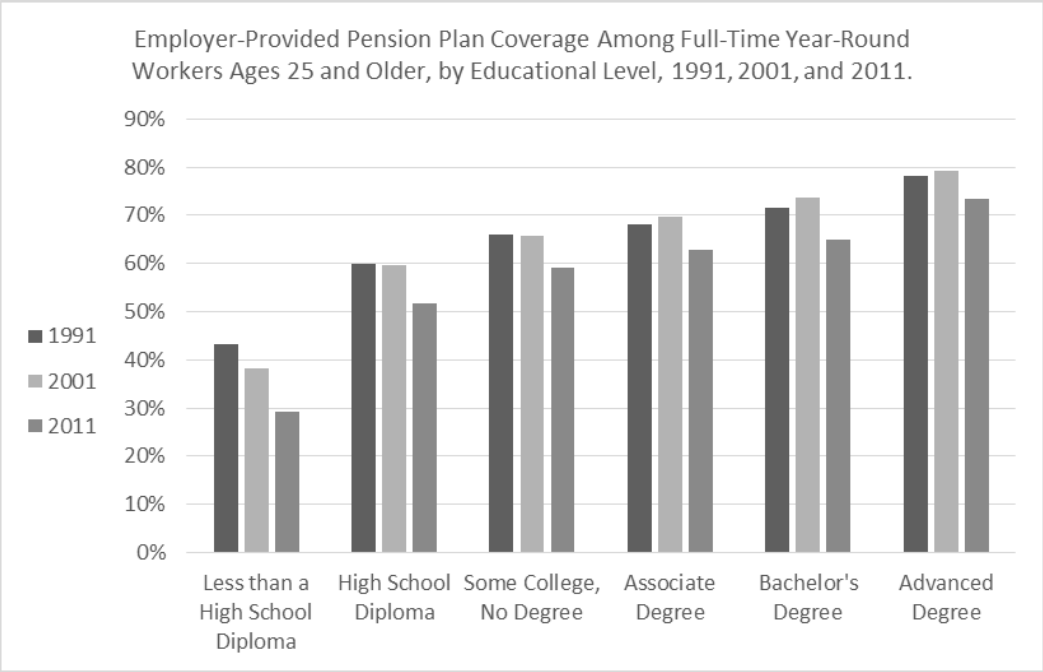
Unemployment Rates Among Individuals Ages 25 and Older, by Education Level, 1992-2012						
	Less than a High School Diploma	High School Diploma	Some College, No Degree	Associate Degree	Bachelor's Degree or Higher	Total
1992	11.5%	6.8%	6.0%	4.8%	3.2%	6.1%
1993	10.8%	6.3%	5.6%	4.4%	2.9%	5.6%
1994	9.8%	5.4%	4.7%	3.8%	2.6%	4.8%
1995	9.0%	4.8%	4.3%	3.3%	2.4%	4.3%
1996	8.7%	4.7%	4.0%	3.3%	2.2%	4.2%
1997	8.1%	4.3%	3.5%	2.7%	2.0%	3.8%
1998	7.1%	4.0%	3.2%	2.5%	1.8%	3.4%
1999	6.7%	3.5%	3.0%	2.5%	1.8%	3.1%
2000	6.3%	3.4%	2.9%	2.3%	1.7%	3.0%
2001	7.2%	4.2%	3.5%	2.9%	2.3%	3.7%
2002	8.4%	5.3%	4.8%	4.0%	2.9%	4.6%
2003	8.8%	5.5%	5.2%	4.0%	3.1%	4.8%
2004	8.5%	5.0%	4.5%	3.7%	2.7%	4.4%
2005	7.6%	4.7%	4.2%	3.3%	2.3%	4.0%
2006	6.8%	4.3%	3.9%	3.0%	2.0%	3.6%
2007	7.1%	4.4%	3.8%	3.0%	2.0%	3.6%
2008	9.0%	5.7%	5.1%	3.7%	2.6%	4.6%
2009	14.6%	9.7%	8.6%	6.8%	4.6%	7.9%
2010	14.9%	10.3%	9.2%	7.0%	4.7%	8.2%
2011	14.1%	9.4%	8.7%	6.8%	4.3%	7.6%
2012	12.4%	8.3%	7.7%	6.2%	4.0%	6.8%

One of the most crucial individual returns from higher education is the potential for increased upward socioeconomic mobility. This approach embodies the American Dream in the sense that it is the single factor that provides the most ability for an

individual to better himself and climb to a higher socioeconomic station than he was born in. This trend holds true across all levels of income when children receive four-year degrees. For example, of adults who grew up in the middle family income quintile according to Education Pays, 31% of those with a four-year college degree moved up to the top income quintile between 2000 and 2008, compared with just 12% of those without a four-year degree. Additionally, of adults who grew up in the bottom family income quintile, 47% of those without a bachelor's degree remained in the bottom quintile, compared to only 10% of those with a bachelor's degree. 3% of those without a bachelor's degree born in the lowest income quintile moved up to the top quintile, as opposed to 10% of those with a four-year degree (Education Pays 2013).

There are several individual benefits of higher education other than direct financial compensation and potential upward socioeconomic mobility. For example, college-educated workers are much more likely than others to be offered pension plans by their employers, as shown in Figure 15 below. From those workers whom plans are available to, participation rates are higher for individuals with higher education levels.

Figure XV



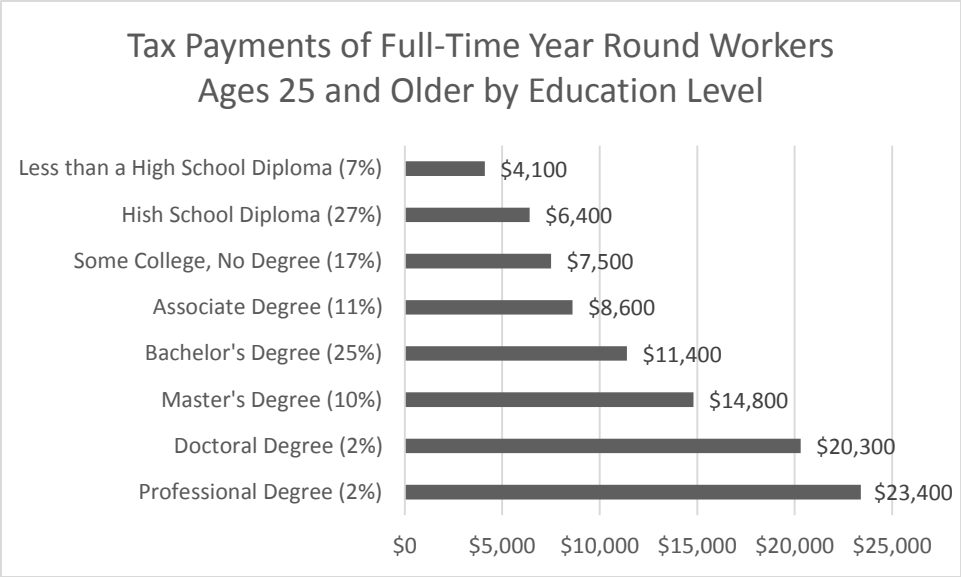
The attainment of postsecondary education has also been shown to result in higher levels of health insurance coverage, with the percentage of each demographic covered increasing consistently with each level of degree obtained (Education Pays 2013). Current research has also demonstrated that as educational level increases, so do healthy habits. The percentage of people who smoke has been declining since the 1960s, but it has declined quicker and remains much lower in people who hold college degrees. College graduates also exercise more and have lower levels of obesity, leading to healthier lifestyles and lower healthcare costs overall.

SOCIAL/SOCIETAL RETURNS OF POSTSECONDARY EDUCATION

The most direct societal benefit of postsecondary education is the increased payment of individual taxes at the local, state, and federal level that accompany the higher wages of college graduates. Four-year college graduates pay, on average, 78% more taxes annually than high school graduates, and students who go on to

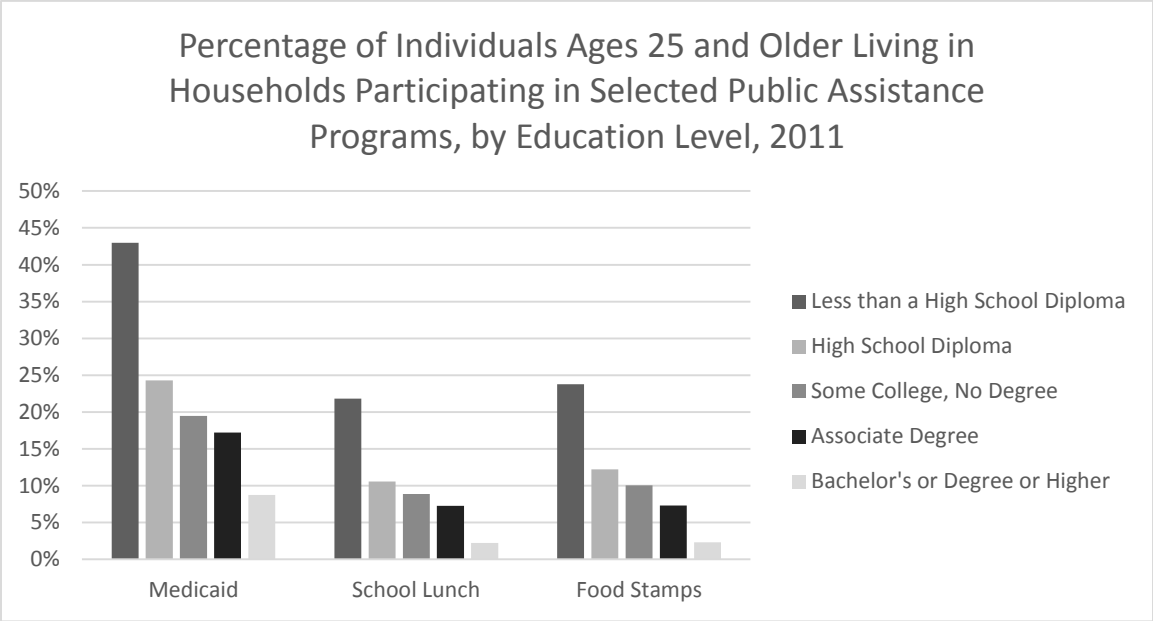
earn a professional degree pay more than 350% more taxes than high school graduates, as shown in Figure 16 below.

Figure XVI



In correlation with the higher amount of tax contributions from college graduates, they also participate in significantly fewer government income subsidy programs, allowing these funds to be redirected to more necessary areas. For instance, in 2011, 24% of individuals with less than a high school diploma lived in a household that participated in SNAP (Supplemental Nutritional Assistance Program), as opposed to only 2% of individuals who received a bachelor's degree or higher. An almost identical trend exists for government subsidized school lunches, and a similar trend exists for Medicaid, as shown in Figure 17.

Figure XVII



(Education Pays-Collegeboard)

One of the most interesting findings regarding the benefits of postsecondary education regards its benefits to the individuals in close physical proximity to college graduates. A study by Moretti found that the wages of high school dropouts, graduates, and even other college graduates increased noticeably when there was even a small increase in the number of college graduates in their various places of employment: a 1% increase in the concentration of college graduates increased the wages of high school dropouts by 1.9%, high school graduates by 1.6%, and other college graduates by 0.4%. This study denotes a synergistic increase in wages for all parties working in proximity with college graduates. This increased productivity came from a combination of increased pressure to perform better while being surrounded with a larger amount of high-performing coworkers, as well as an increase of learning by observation (Hout). These results were reached by the

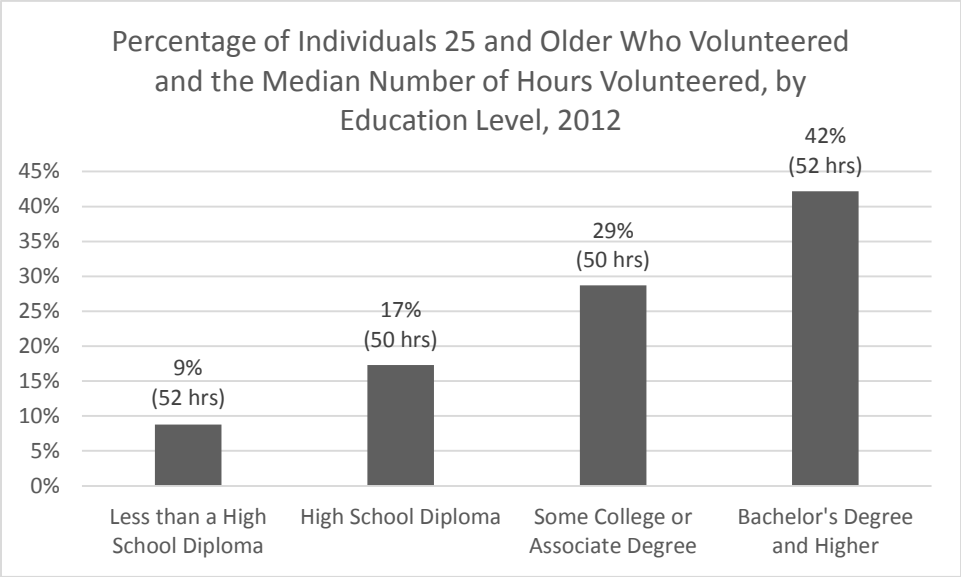
authors mapping the distance between the most productive person in a retail store and the least productive ones, finding that workers who were nearer to college graduates performed much higher than those who were distant.

Aside from the quantitative financial societal benefits of postsecondary education, there are several qualitative benefits that are equally if not more important. College graduates as a whole are much more concerned with and invest more time in their communities through volunteering, are much more likely to vote, and have a broader grasp of political issues. Additionally, they are more likely to spend more time with their children and, therefore, ensure the continuance of these socially valuable habits.

College education has also been correlated with greater familial and marital stability, which is now divided along educational lines in previously unseen amounts. In a study performed by Fischer and Hout, it was clearly shown that the percentage of children living with two adults is by far the highest for those with a college degree (roughly 86%) and then decreases directly with level of education down to roughly 50% of children living with two adults in families where neither parent had a high school diploma.

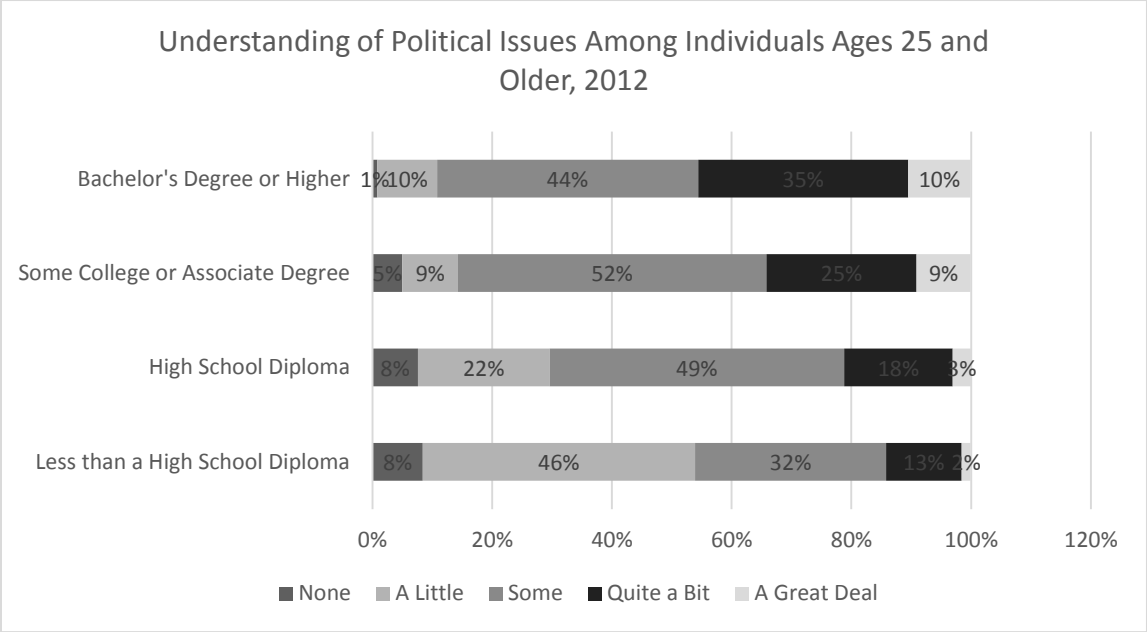
Like trends shown earlier through decreased dependence on government assistance, community involvement demonstrated through volunteer hours increases proportionally throughout the population by education level, as shown in Figure 18.

Figure XVIII



As mentioned earlier, a much higher percentage of the population with college degrees votes in elections, and, as shown in Figure 19, has greater evidenced understanding of political events increases by educational level. This combination of higher political activism and understanding tends to cause the more educated voter to make informed decisions that they consider to be in the best interest of society as a whole.

Figure XIX



HOW DO WE SOLVE IT?

At its highest and purest level, education increases earnings of the individual, increases the quality of life and happiness of the individual and his family, and increases the overall productivity of the individual and those in his immediate environment. When considering these facts, it would seem that an increase in the educational level of the populace at large could be the solution to several large-scale social and economic issues, such as high levels of individual debt and dependency on government income supplementation programs. However, the current structure of postsecondary education in the United States, as well as the student debt that is financing a large part of it, is preventing a higher increase in the overall level of education of the population that could otherwise be possible. The student debt crisis is causing several concurrent issues while narrowing the inroads to education,

as mentioned throughout this paper, such as lowering the quality of life of the individuals in repayment and delaying the purchases of large assets such as houses and cars that are a significant portion of the national GDP. Pursuant to this, the elimination of such high levels of student debt is interconnected with the proper stimulation of the economy and increasing the capacity and availability of higher education to a larger percentage of the population. As Hout mentioned in *The Social and Economic Returns to College Education in the United States*,

> How much of the student debt problem can be solved by the government, and how much can be solved by the student? The government can lower interest rates and help crowd out predatory lending practices, but the student can solve a large portion of this by not enrolling in programs that cause large amounts of debt with little potential for financial return. How much of the issue can be solved by individual institutions? Lower internal costs and quit trying to be a one-size-fits-all for several different programs. Lowering of interest rates/restructure by government, better informed students, and more cost-effective universities will all significantly reduce the student debt burden.

Since the burden of the debt rests on the student, the student must be the first to take responsibility for the amount of debt assumed in order to facilitate its eventual elimination. The research presented throughout this paper has shown that the benefits of college far outweigh the costs, but students must first be made aware of what costs they will be assuming when they pursue postsecondary education. The process currently in practice leads the majority of students to leave home, move to a

new place, decide what their life goals are, and assume the burden of financing them all within a few months. These are several heavy decisions to place upon a 17-18 year old person, and without proper counseling, it is to be expected that some of those decisions will not be optimal. A study by Rutgers on Great Recession-era college graduates asked a panel of 444 recent graduates "thinking back to college, is there anything you would have done differently to be successful today?" The top response, by 37% of students surveyed, stated "been more careful about selecting my major or chosen a different major". When asked what type of major they would have chosen instead, the top response, with 41% of total votes, was a professional major, followed by 29% choosing a STEM major, 17% choosing business majors, 7% choosing social science majors, and 4% choosing the humanities. When asking students from the same study what they considered when choosing their majors, roughly 25% stated that they considered nothing at all.

This is a terrifying situation, when 25% of a representative sample of college graduates have no idea of their potential careers or whether they will earn enough to repay the debt that they will have to assume in order to attain these degrees, and 37% of graduates wish they had majored in something different. A large portion of student debt could hypothetically be eliminated by educating high school students on the impact of a life with large amounts of student debt and explaining current statistics for the ability to pay off various levels of student debt with the salaries of the majors they choose. This approach could also help mitigate the predatory recruiting practices of the for-profit sector by informing students of their chances for employment depending on the type of institution they attend. One negative

aspect of this approach is that it may deter students away from lower-salaried majors that are beneficial and necessary for the health of society. However, this separate issue must be addressed by the overall lowering of student debt, or perhaps by government subsidy, because as long as students continue to pursue degrees that they are financially unable to repay, the national student debt burden will only continue to grow.

Another issue noted by Education Pays and other studies is that first-generation students and those from low-income backgrounds typically lack the full scope of information needed to make the best educational choices when enrolling in college. Because of this, many of these students enroll in colleges that are less selective and less challenging than they would have likely been admitted to based on their academic qualifications. This enrollment pattern significantly decreases the probability of graduating, leaving the student to pay off multiple years' worth of student loans with no degree to qualify them for a higher-paying job. A more serious and targeted approach to educating high school students about their degree choices, the impact of debt, and the salaries needed to repay it could account for a large portion of student debt due to the current lack of information to students.

A significant portion of the responsibility for the solution to student debt rests with the federal government, which is the lender of the vast majority of student debt. Currently the government is profiting by placing the highest-earning demographic of the population into large amounts of debt, which further prevents these people form purchasing houses and cars at the correct time, further slowing economic development. Federal loans also do not currently cover all of the necessary

expenses for several institutions, causing several students to turn to private lenders and pay much higher interest rates than they would pay if they had not reached capacity on Federal loans. In order to fulfill its role and allow students to attain a higher level of education without remaining in debt and delaying crucial purchases, legislation should be promoted to lower the federal loans interest rate, increase the capacity to borrow per student pending proof of financial need for extra funds, and, when necessary, increase the period of payment deferral for certain borrowers. This would cease the federal government profiting from student loans, effectively crowd out the usurious lending practices of the private sector, and allow more students to attend school and return the purchase of large assets to historical norms.

APPENDIX

Postsecondary Fall Enrollment by Attendance Status and Level of Enrollment (with Percentage of All Students Enrolled in Each Sector), 1995 to 2012, Selected Years

	For-Profit				
	1995 (2%)	**2000 (4%)**	**2005 (7%)**	**2010 (11%)**	**2012 (10%)**
Undergraduate Full-Time	146,608	331,543	701,872	1,258,654	1,095,443
Undergraduate Part-Time	42,634	71,348	145,994	462,324	418,170
All Graduate	16,963	47,193	163,083	297,419	295,285
Non-Degree-Granting Institutions	34,158	222,767	311,665	407,548	366,133
TOTAL	**240,000**	**673,000**	**1,323,000**	**2,426,000**	**2,175,000**
Undergraduate Full-Time	61%	49%	53%	52%	50%
Undergraduate Part-Time	18%	11%	11%	19%	19%
All Graduate	7%	7%	12%	12%	14%
Non-Degree-Granting Institutions	14%	33%	24%	17%	17%
	Private Nonprofit Four-Year				
	1995 (20%)	**2000 (20%)**	**2005 (19%)**	**2010 (18%)**	**2012 (19%)**
Undergraduate Full-Time	1,566,909	1,747,846	1,967,708	2,174,284	2,220,660
Undergraduate Part-Time	462,630	406,490	407,138	446,460	486,809
All Graduate	824,351	896,239	1,036,324	1,201,516	1,208,503
Non-Degree-Granting Institutions	0	1,280	468	423	384
TOTAL	**2,854,000**	**3,052,000**	**3,412,000**	**3,823,000**	**3,916,000**
Undergraduate Full-Time	55%	57%	58%	57%	57%
Undergraduate Part-Time	16%	13%	12%	12%	12%
All Graduate	29%	29%	30%	31%	31%
Non-Degree-Granting Institutions	0%	0%	0%	0%	0%
	Public Four-Year				
	1995 (41%)	**2000 (39%)**	**2005 (38%)**	**2010 (37%)**	**2012 (38%)**
Undergraduate Full-Time	3,535,670	3,796,864	4,360,934	5,043,049	5,136,736
Undergraduate Part-Time	1,090,558	1,045,397	1,152,796	1,443,203	1,549,347
All Graduate	1,188,317	1,213,137	1,323,875	1,438,519	1,406,600
Non-Degree-Granting Institutions	0	128	36	42	44
TOTAL	**5,815,000**	**6,056,000**	**6,838,000**	**7,925,000**	**8,093,000**
Undergraduate Full-Time	61%	63%	64%	64%	63%
Undergraduate Part-Time	19%	17%	17%	18%	19%
All Graduate	20%	20%	19%	18%	17%
Non-Degree-Granting Institutions	0%	0%	0%	0%	0%

	Public Two-Year				
	1995 (37%)	**2000 (37%)**	**2005 (35%)**	**2010 (34%)**	**2012 (33%)**
Undergraduate Full-Time	1,840,184	2,000,003	2,386,977	2,952,480	2,615,620
Undergraduate Part-Time	3,436,640	3,697,058	3,797,023	4,265,558	4,172,040
All Graduate	0	0	0	0	0
Non-Degree-Granting Institutions	0	61,222	50,719	66,575	57,514
TOTAL	**5,277,000**	**5,758,000**	**6,235,000**	**7,285,000**	**6,845,000**
Undergraduate Full-Time	35%	35%	38%	41%	38%
Undergraduate Part-Time	65%	64%	61%	59%	61%
All Graduate	0%	0%	0%	0%	0%
Non-Degree-Granting Institutions	0%	1%	1%	1%	1%

Figure 14A. Annual Percentage Change in State Appropriations for Higher Education per Full-Time Equivalent (FTE) Student and Percentage Change in Inflation-Adjusted Tuition and Fees at Public Four-Year Institutions, 1982-83 to 2012-13

Academic Year	Appropriations per FTE Including Federal Stimulus Funds	Appropriations per FTE Not Including Federal Stimulus Funds	Public Four-Year Tuition and Fees
1982-83	-1.7%		6.6%
1983-84	3.3%		8.7%
1984-85	9.6%		2.7%
1985-86	3.3%		3.6%
1986-87	2.1%		5.6%
1987-88	0.4%		1.1%
1988-89	-0.4%		2.0%
1989-90	-1.5%		2.4%
1990-91	-5.5%		7.3%
1991-92	-7.5%		5.7%
1992-93	-4.5%		7.4%
1993-94	1.9%		5.7%
1994-95	1.9%		3.8%
1995-96	1.3%		1.1%
1996-97	1.5%		2.8%
1997-98	2.9%		2.3%
1998-99	4.7%		2.6%
1999-00	3.4%		1.4%
2000-01	-0.2%		0.7%
2001-02	-3.7%		4.5%
2002-03	-6.4%		7.2%
2003-04	-6.6%		11.0%
2004-05	2.9%		7.2%
2005-06	4.1%		3.9%
2006-07	1.8%		1.5%
2007-08	2.0%	2.0%	4.2%
2008-09	-9.6%	-12.2%	0.9%
2009-10	-6.0%	-8.8%	9.5%
2010-11	-3.3%	-1.1%	6.5%
2011-12	-10.7%	-7.5%	4.7%
2012-13	-0.6%	-0.5%	3.0%

Figure 14B. State Appropriations for Higher Education: Total Appropriations in 2012 Dollars (in Billions), Appropriations per Public FTE Student in 2012 Dollars (in Thousands), and Public FTE Enrollment (in Millions), 1982-83 to 2012-13

	Appropriations per FTE (Thousands)		Total Appropriations (Billions)		
Academic Year	Including Federal Stimulus Funds	Not Including Federal Stimulus Funds	Including Federal Stimulus Funds	Not Including Federal Stimulus Funds	Public FTE Enrollment (Millions)
1982-83	$8.3		$57.1		6.9
1983-84	$8.6		$59.2		6.9
1984-85	$9.4		$63.0		6.7
1985-86	$9.7		$64.9		6.7
1986-87	$9.9		$67.4		6.8
1987-88	$10.0		$69.2		6.9
1988-89	$9.9		$70.6		7.1
1989-90	$9.8		$72.2		7.4
1990-91	$9.3		$70.0		7.6
1991-92	$8.6		$67.4		7.9
1992-93	$8.2		$64.8		7.9
1993-94	$8.3		$65.2		7.8
1994-95	$8.5		$66.2		7.8
1995-96	$8.6		$66.7		7.8
1996-97	$8.7		$68.1		7.8
1997-98	$9.0		$70.8		7.9
1998-99	$9.4		$74.2		7.9
1999-00	$9.7		$78.1		8.0
2000-01	$9.7		$80.4		8.3
2001-02	$9.4		$80.9		8.6
2002-03	$8.8		$79.4		9.1
2003-04	$8.2		$75.7		9.2
2004-05	$8.4		$78.8		9.3
2005-06	$8.8		$82.4		9.4
2006-07	$8.9		$84.9		9.5
2007-08	$9.1	$9.1	$88.7	$88.7	9.7
2008-09	$8.2	$8.0	$82.9	$80.5	10.1
2009-10	$7.7	$7.3	$83.2	$78.4	10.8
2010-11	$7.5	$7.2	$82.5	$79.5	11.0
2011-12	$6.7	$6.7	$73.2	$73.1	10.9
2012-13	$6.6	$6.6	$72.0	$72.0	10.8

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